IN THE CLAIMS

Claim 1(original): A non-human animal that expresses a modified version of the gene coding for the gamma subunit of AMP-activated protein kinase (AMPKg).

Claim 2(original): The animal according to claim 1, wherein said animal is an invertebrate.

Claim 3(original): The animal according to claim 2, wherein said animal is an insect, preferably a fly.

Claim 4(currently amended): The animal according to claim 1 ~~claims 1 to 3~~, obtainable by a method selected from the group consisting of transposon insertion mutagenesis and chemical mutagenesis of the gene coding for the gamma subunit of AMP-activated protein kinase (AMPKg).

Claim 5(currently amended): The animal according to claim 1 ~~claims 1 to 4~~, wherein said modified version of the gene coding for the gamma subunit of AMP-activated protein kinase (AMPKg) is the *loechrig* (*loe*) mutation.

Claim 6(currently amended): The animal according to claim 1 ~~claims 1 to 5~~, wherein the expression of said gene results in an identifiable phenotype.

Claim 7(currently amended): The animal according to claim 6 ~~claims 1 to 6~~, wherein said identifiable phenotype is related to lipid metabolism and/or is a neurodegenerative phenotype.

Claim 8(currently amended): The animal according to claim 1 ~~claims 1 to 7~~, wherein said animal expresses a gene coding for an amyloid precursor protein, or a modified version thereof, in particular a fragment or a mutant thereof.

Claim 9(original): The animal according to claim 8, wherein said modified version of the gene coding for an amyloid precursor protein is a modified version of the gene coding for beta amyloid protein precursor-like (Appl) protein.

Claim 10(currently amended): The animal according to claim 8 ~~claims 8 and 9~~, wherein said modified version comprises a deletion, or a partial deletion, of the gene coding for beta amyloid protein precursor-like (Appl) protein, wherein said deletion, or partial deletion results in a loss-of-function of said gene.

Claim 11(currently amended): The animal according to claim 1 ~~any of claims 1 to 10~~, wherein said animal is transgenic for a modified version of the gene coding for the gamma subunit of AMP-activated protein kinase (AMPKg) and/or a gene coding for an amyloid precursor protein, or a modified version thereof, in particular a fragment or a mutant thereof.

Claim 12(currently amended): Use of an animal according to claim 1 ~~any of claims 1 to 11~~ for identifying a modulator which affects lipid metabolism.

Claim 13(currently amended): Use of an animal according to claim 1 ~~any of claims 1 to 11~~ for identifying a modulator which affects a neurodegenerative phenotype.

Claim 14(currently amended): Use of an animal according to claim 1 ~~any of claims 1 to 11~~ for identifying a modulator which affects processing of an amyloid precursor protein.

Claim 15(currently amended): A method of identifying a modulator according to claim 12 ~~claims 12 to 14~~, comprising administering a substance, or a plurality of substances, to said animal; and observing the effect of said substance, or plurality of substances, on said animal.

Claim 16(original): The method according to claim 15, wherein said substance, or plurality of substances, is orally administered to said animal.

Claim 17(currently amended): Use of an animal according to claim 1 ~~any of claims 1 to 11~~ for identifying whether a gene, or a mutant thereof, is capable of modulating a phenotype related to lipid metabolism and/or neurodegeneration, in particular processing of an amyloid precursor protein.